

REMARKS

This is intended as a full and complete response to the Office Action dated January 8, 2009, having a shortened statutory period for response set to expire on April 8, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claims 21-24 and 26-28 remain pending in the application. Claims 21-24 and 26-28 stand rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Applicant proposes to cancel claims 21-24, and rewrite claims 26-28 in independent form. Applicant submits that no new matter has been introduced in this amendment and respectfully requests the Examiner to enter proposed amendment and reconsider rejection for reasons presented below.

Claim Rejections- 35 U.S.C. § 103

Claims 21, 23-24 and 26-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hongo et al.* (U.S. Patent No. 6,921,466, hereafter *Hongo'466*) in view of *Hongo et al.* (U.S. Patent No. 6,716,330, hereafter *Hongo'330*). Applicant respectfully traverses the rejection.

Hongo'466 teaches substrate processing systems for plating metal and removing plated metal (Column 1, lines 9-17). The Examiner asserts that *Hongo'466* teaches a system having two processing modules in Figure 47 except that *Hongo'466* fails to teach a module including an electroless plating cell and a pretreatment/post treatment cell. The Examiner further asserts that it is obvious to combine an electroless plating cell of *Hongo'330* with the systems of Figure 47 of *Hongo'466* to render claimed subject matter.

However, Applicant respectfully submits that the combination of *Hongo'466* and *Hongo'330* does not teach or suggest subject matter in claims 26-28. Particularly, the combination of *Hongo'466* and *Hongo'330* does not teach or suggest at least two substrate processing modules in detachable communication with a factory interface, and the at least two substrate processing modules are interchangeable, as set forth in claim 26.

The Examiner asserts that *Hongo'466* teaches a system having processing modules that are interchangeable. Applicant respectfully submits that the two processing modules 512 in the cited Figure 49 are not interchangeable as the two modules 512 have mirror image shapes (Figure 49 of *Hongo'466*). The module 512 on the left side cannot fit in the position of the module 512 on the right side, and vice versa. Therefore, the two modules are not interchangeable even if each module could be replaced by similar modules having different functions. Additionally, *Hongo'466* also does not teach or suggest that the two pretreatment/post treatment cells are interchangeable within the processing system, as set forth in claim 27. *Hongo'466* also does not teach or suggest that the two electroless processing cells are interchangeable within the processing system as set forth in claim 28.

Hongo'330 teaches an electroless plating apparatus 62 and using the electroless plating apparatus 62 as a standalone apparatus with in a system (Figure 4). *Hongo'330* does not teach or suggest a system having two or more processing module each comprising an electroless processing cell and a pretreatment/post treatment cell, as set forth in the pending claims.

Therefore, the combination of *Hongo'466* and *Hongo'330* does not teach or suggest an electroless processing system, comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell, wherein the at least two substrate processing modules are interchangeable, as recited in claim 26.

The combination of *Hongo'466* and *Hongo'330* also does not teach or suggest an electroless processing system, comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless

processing cell, wherein the pretreatment/post treatment cells are interchangeable within the processing system, as recited in claim 27.

The combination of *Hongo'466* and *Hongo'330* also does not teach or suggest an electroless processing system comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell, wherein the electroless processing cells are interchangeable within the processing system, as recited in claim 28.

Accordingly, claims 26-28 are in condition for allowance. Applicant proposes to cancel claims 21 and 23-24. Withdrawal of this rejection is respectfully requested.

Claims 21, 23-24 and 26-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hongo'466* in view of *Dordi et al.* (U.S. Patent No. 6,267,853, hereafter *Dordi*). Applicant respectfully traverses the rejection.

The Examiner asserts that the combination of Figure 31 of *Hongo'466* and *Dordi* teaches a substrate processing module including a pretreatment/post treatment cell and an electroless processing cell. Applicant respectfully disagrees.

Figure 31 of *Hongo'466* teaches a system having a plurality of standalone processing units 111-118 and a forming unit 111 may be an electroless Ru plating unit (column 34 lines 29-40). However, *Hongo'466* does not teach or suggest the forming unit 111 is included in a module in detachable communication with a factory interface. *Dordi* teaches an electroless deposition cell rinse and spin dry a substrate by positioning the substrate at different elevation (Figure 17, column 13 line 25-column 14 line 23). However, the combination of *Hongo'466* and *Dordi* does not teach or suggest a processing module including a pretreatment/post treatment cell and an electroless processing cell as set forth the pending claims.

Therefore, the combination of *Hongo'466* and *Dordi* does not teach or suggest an electroless processing system, comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell, wherein the at least two substrate processing modules are interchangeable, as recited in claim 26.

The combination of *Hongo'466* and *Dordi* also does not teach or suggest an electroless processing system, comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell, wherein the pretreatment/post treatment cells are interchangeable within the processing system, as recited in claim 27.

The combination of *Hongo'466* and *Dordi* also does not teach or suggest an electroless processing system comprising a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette, and at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell, wherein the electroless processing cells are interchangeable within the processing system, as recited in claim 28.

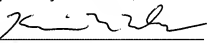
Accordingly, claims 26-28 are in condition for allowance. Applicant proposes to cancel claims 21 and 23-24. Withdrawal of this rejection is respectfully requested.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Pat'466* in view of *Pat'330* and *Verhaverbeke et al.* (U.S. Publication No. 2003/0045098,

hereafter *Berhaverbeke*). Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Pat'466* in view of *Dordi* and *Verhaverbeke*. Applicant submits that these rejections are rendered moot in view of proposed cancellation of claim 22. Withdrawal of these rejections is respectfully requested.

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

By 

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